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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/079,586

02/22/2002

Tatsuo Yajima

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05/03/2005

EXAMINER

STEVENS, THOMAS H

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.

1940 DUKE STREET

ALEXANDRIA, VA 22314

ART UNIT

PAPER NUMBER

2123

DATE MAILED: 05/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/079,586

Applicant(s)

YAJIMA, TATSUO

Examiner

Thomas H. Stevens

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. Claims 1-12 were examined.

***Section I: Response to Applicant's Arguments***

***Drawings***

2. Applicants are thanked for addressing this issue. Objection is withdrawn.

***35 USC § 102***

3. Applicants are thanked for addressing this issue. Applicants' state Makiguchi fails to teach or suggest calculated distances between perspective evaluation points on a grid and determining a reference value among the distance values in evaluating the dynamic perspective distortion of the transparent body by obtaining ratios of the distance values in evaluating the dynamic perspective; summarily speaking, the limitations reflect the presentation of these distance values. The Makiguchi reference teaches, first of all, an optical distortion display (pg. 60, figure 20) properties based upon graphs (pg. 60, figure 3) and mathematical equations (pg. 60, equation 1). Naturally, a measured value which deviates from the normal or reference source represents a dissimilar value, representative in the horizontal and vertical direction (pg. 60, left column, last paragraph; and right column, paragraphs 1-4). What better way to graphically represent this information by creating a bar graph presentation reflective of distortion values. Rejection stands.

***Section II: Final Office Action (2<sup>nd</sup> Action)***

***Amended Claim Objection***

4. Amended claim 8, now reads, "The claim 7, wherein". Minor change requested.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Makiguchi et al.. Makiguchi et al. teaches a CAD simulation program which enabled estimation of the optical distortion level using windshield shape data (abstract).

Claim 1. A method for evaluating dynamic perspective distortion a transparent body (pg.48, left column, paragraphs 4 and 5), comprises the steps of: producing a model of three-dimensionally (abstract: 3 sentence) curved shape of transparent body having refractive index (inherent to the science of optics: Snell's Law); determining an eye point at side of the model of three-dimensionally curved shape (pg.48, left column, paragraphs 4 and 5 with table 1) and a virtual evaluation pattern having a plurality of evaluation points at the other side of the model dimensionally curved shape (pg. 48-49, section 2.1, with table 2); observing, from the eye point, three-dimensionally the virtual evaluation pattern through the transparent body, (pg. 48-49, section 2.1, with table 2) extracting perspective evaluation points as images evaluation points, obtained by

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observing through the transparent body, a two-dimensional picture image obtained by the observation, and obtaining distance values of adjacent perspective evaluation points; determining an optional value be a reference value, among the distance values, and evaluating the dynamic perspective (pg.48, left column, paragraphs 4 and 5 with pgs 50-51, section 4.3 and 4.4) distortion of the transparent body by obtaining ratios (pg. 53, table 3, visual sensitivity) of the distance values to the reference value.

Claim 2. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 48-49, section 2.1, with table 2; pg.48, left column, paragraphs 4 and 5 with pgs 50-51, section 4.3 and 4.4) wherein: the dynamic perspective distortion the transparent body evaluated based on the rate of change of the ratios (inherent: calculation is obtainable given the data mentioned) of the distance values to the reference value.

Claim 3. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 48-49, section 2.1, with table 2; pg.48, left column, paragraphs 4 and 5 with pgs 50-51, section 4.3 and 4.4) wherein: the minimum value among the distance values selected as the reference value, and the dynamic perspective distortion of the transparent body is evaluated based on the maximum value among the ratios of the distance values (inherent: calculation is obtainable given the data mentioned) with respect to the minimum value.

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Claim 4. The method of Claim 1 (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity), wherein: the virtual evaluation pattern an orthogonal grid pattern (figure 6 with pg. 50, section 4.3, 2<sup>nd</sup> paragraph).

Claim 5. The method of Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity) wherein: the transparent body is at least one selected from a glass sheet and a resinous plate (figure 6 with pg. 50, section 4.3, 1st paragraph).

Claim 6. The method of a transparent body according to Claim 1, (pg.48, left column, paragraphs 4 and 5; pg. 53, table 3, visual sensitivity) wherein: the image seen through the model of three-dimensionally curved shape of the transparent body is animation-displayed (pg.50, figure 5 with section 4.20).

Claim 7. A method for correcting three-dimensionally curved shape of a transparent body, which comprising: the steps of (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5): step of producing a model of three-dimensionally curved shape of a transparent body having a predetermined refractive index (inherent to the science of optics: Snell's Law); determining an eye point at a side of the model of three-dimensionally curved shape and a virtual plurality of evaluation the model of three-evaluation pattern having a points at the other side dimensionally curved shape (pg. 48-49, section 2.2 and pg. 50 section 4.3 1st paragraph); observing, from the eye point, the virtual evaluation pattern through the transparent body, (pg. 48-49, section 2.2

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and pg. 50 section 4.3 1st paragraph) extracting perspective evaluation points as images evaluation points, obtained by observing through the transparent body, in a two-dimensional picture image obtained by the observation (pg. 40 figure 4 with section 4.2), and obtaining distance values between adjacent perspective evaluation points (pgs. 50-51 section 4.3 with figured 6-7); the determining an optional value be a reference value, among these distance values; evaluating the dynamic perspective distortion of the transparent body by obtaining ratios of the distance values the reference value (inherent: calculation is obtainable given the data mentioned), correcting the three-dimensionally curved the transparent body according to the evaluation.

Claim 8. The of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the dynamic perspective shape distortion the transparent body evaluated based on the rate of change of the ratios of the distance values the reference value (not addressed by examiner: see 112 1<sup>st</sup>).

Claim 9. The method of Claim 7 (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5), wherein: the minimum value among the distance values is selected as the reference value, and the dynamic perspective distortion of the transparent body is evaluated based on the maximum value among the ratios the distance values with respect to the minimum value (inherent: calculation is obtainable given the data mentioned).

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Claim 10. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the virtual evaluation pattern an orthogonal grid pattern (figure 6 with pg. 50, section 4.3, 2<sup>nd</sup> paragraph).

Claim 11. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the transparent body is at least one selected from a plate glass sheet and a resinous (figure 6 with pg. 50, section 4.3, 1<sup>st</sup> paragraph).

Claim 12. The method of Claim 7, (pgs. 47, right column, paragraphs 1 and 2; 48, left column, paragraphs 4 and 5) wherein: the image seen through the model of three-dimensionally curved shape of the transparent body is animation-displayed.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any



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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

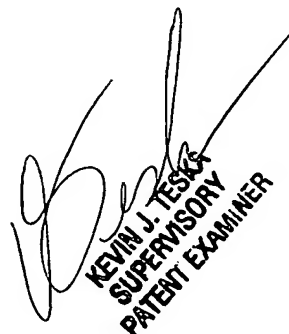
***Correspondence Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mr. Tom Stevens whose telephone number is 571-272-3715, Monday-Friday (8:00 am- 4:30 pm) or contact Supervisor Mr. Kevin Teska at (571) 272-3716. Fax number is 571-273-3715.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

April 26, 2005

THS

  
KEVIN J. TESKA  
SUPERVISORY  
PATENT EXAMINER